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STATE OF COLORADO



1964



### ANNUAL REPORT

DIVISION OF NATURAL RESOURCES

COAL MINE INSPECTION DEPARTMENT



### STATE OF COLORADO



1964



ANNUAL REPORT

DIVISION OF NATURAL RESOURCES

COAL MINE INSPECTION DEPARTMENT

CONR M C6 1964 C.2

### LETTER OF TRANSMITTAL

April 1, 1965

To His Excellency John A. Love Governor of Colorado

Sir:

It is an honor to submit to you the Annual Report of the State Coal Mine Inspection Department, Division of Natural Resources of Colorado, for the year ending December 31, 1964.

Respectfully,

DONALD HASKE Chief Inspector of Coal Mines

RICHARD T. ECKLES Coordinator, Division of Natural Resources



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### PERSONNEL OF DEPARTMENT

### CHIEF COAL MINE INSPECTOR - DONALD HASKE

Office - 318 State Services Building Denver, Colorado 80203 Telephone - 222-9911 Ext. 2616

Home - 4561 Perry Street Denver, Colorado 80212 Telephone - 477-9295

<u>DISTRICT INSPECTORS</u> - (Counties within each district)

Dist. #1 - GRANT McCONNELL - Box 167, Milner, Colorado 81644 Telephone - Stmbt. Spgs. 879-0698

(Garfield, Moffat, Rio Blanco, Routt and Weld)

Dist. #2 - J. ARTHUR HASKE - 1117 Macon St., Canon City, Colo. 81212 Telephone - 275-5635

(El Paso, Fremont, Huerfano and Las Animas)

Dist. #3 - OSCAR T. RICE - P.O. Box 640, Paonia, Colorado 81428 Telephone - 527-3981

(Delta, Gunnison, La Plata, Mesa, Montrose and Pitkin)

### GENERAL OFFICE

Sr. Administrative Assistant .... Veda Burford

720 Jersey St., Denver, Colo. 80220

Telephone 377-4317

Sr. Account Clerk ..... Evelyn Miller

3357 W. 36th Avenue

Clerk Stenographer .....Jo Anne M. Osborn

5230 Stuart Street

Intermediate Clerk-Typist ..... Marjorie T. Sutton

1203 South High Street

### BOARD OF EXAMINERS FOR COAL MINE OFFICIALS

Donald Haske, Chief Inspector - Denver 80203 Robert A. Jackson, E.M., Secretary, 16 Carlile Pl., Pueblo Gerald R. Jones, 1077 Village Lane, Steamboat Springs John Sebben, Box 41, Sopris Frank Bosco, 230 W. 3rd, Florence

### INTRODUCTORY COMMENTS

 $\frac{\text{NEW CHIEF INSPECTOR}}{\text{District $\#1$, was certified on February 17, 1964 to the position of Chief Inspector by the State Civil Service Commission.}$ 

Mr. Haske worked in Colorado coal mines since 1926. He gained his first experience in some of the largest C.F.&I. mines near Walsenburg in Huerfano County. He went to Routt County in 1936 where he worked as Mine Foreman at the Colorado & Utah mine at Mt. Harris until 1956 when he was employed as superintendent through 1958 when the mine was abandoned. He was certified as a district inspector for the state in January, 1959, and was Acting Chief during the illness or any absence of the late Thomas Allen.

Mr. Haske was always active in safety activities, being a member of mine rescue and 1st aid winning teams of which he was also an instructor. He had extensive experience in mine fires and recovery work at various mines among which was the Wadge explosion when 34 lives were lost.

Mr. Haske also has done extensive exploration work in coal areas in the state.

COAL PRODUCTION SOARS - The continued growth of the electric utility industry accounts largely for the increase in demand for more coal throughout the nation. With the unlimited reserves of coal in Colorado, our production will continue to soar in meeting the increased consumption of coal by the steam generating plants in the state which are the largest consumers.

Colorado produced almost 18.7% more coal in 1964 than in 1963, and over 29.7% more than in 1962. This is only the beginning.

The Public Service Company of Colorado has announced their immediate plans to build their 4th generating plant near Denver, which will be the largest in the Rocky Mountain region, which alone will use about 150 tons of coal per hour at full production. The R.E.A. plant near Hayden is under construction, and it is reported that they will be in operation in 1965.

The greater amount of coal used by the steam generating plants in this state comes from strip mines which increased their tonnage by over 22% in 1964. The production from the new strip mine opened by the Seneca Coals, Ltd., owned by the Peabody Coal Company of St. Louis, Missouri, will be used by the R.E.A. plant where they have stockpiled over 110,000 tons of coal to date. This mine is located near the old Wadge Mine and the coal is trucked about six miles to the site of the plant.

The steel mills of Colorado and Utah are second largest consumers of Colorado coal. The C.F.& I. mills in Pueblo used the total production from their Allen Mine, and the U.S. Steel mills in Utah used the total output from their Somerset Mine in Gunnison County and the mines in Pitkin County.

SOMERSET MINE REHABILITATED - The Somerset Mine in Gunnison County has operated continuously since 1903 when it was opened by the Utah Fuel Company with three subsequent changes in operators. The U.S. Steel Corporation purchased this mine in 1955, but have only actively operated it since January 1, 1961.

Extensive development started at once to improve and modernize installation and methods of ventilation. The haulage system, face equipment and roof control. Surface structures were also rebuilt or replaced, and the mine is now completely rehabilitated for safe and efficient operation.

CAMEO MINE CHANGES OWNERSHIP - The Cameo Mine in Mesa County has operated since 1899. This mine was purchased by the Juanita Coal and Coke Company of Bowie, Colorado on April 1, 1964, from the Kerr Coal Company who operated it since 1934. The coal produced from this mine is transported directly from the portal to the Public Service power plant by means of conveyors, for about 1, 200 feet.

MAP PROJECT COMPLETED - The maps received from the Colorado School of Mines cover all coal mining areas of the state, and have been placed in a wall case in this office, readily accessible for observation by the public.

Copies of these maps may be obtained at a minimum charge through the Publications Department of the Foundation Fund at the State School of Mines, Guggenheim Building at Golden, Colorado. CROMWELL-AWARD FOR HEROISM - Frederick H. Cromwell employed at the Edna Strip Mine operated by the P. & M. Coal Company near Oak Creek, Colorado, received the Joseph A. Holmes Safety Association awards of Gold Medal of Honor and the Certificate of Honor for outstanding heroism from the U.S. Bureau of Mines, Department of the Interior, which were presented by Governor John A. Love in the Governor's chambers on June 25, 1964. In attendance were the Cromwell relatives, representatives of the P. & M. Coal Company from Kansas City, Missouri, Oak Creek and Denver, and members of the federal and state coal mine inspection staffs. This was one of only three hero awards made in 1964 throughout the United States.

On February 5, 1964, a co-worker, Otis Andrew, Jr. was severely burned in attempting to move a can of diesel fuel that was too close to a salamander used for heat to warm the pit employees; the can of oil exploded, covering him with fuel oil and igniting his clothes. Mr. Cromwell prevented him from running...pulled off the burning coat and replaced it with his own in an attempt to smother the fire. Unable to do this, Cromwell sat on him and cut off the burning clothing. Both men suffered from 1st, 2nd and 3rd degree burns. Mr. Andrew returned to work following his hospitalization.

The action by Mr. Cromwell saved the life of Mr. Andrew, and he well deserved the citation for bravery.

NEW BOARD OF EXAMINERS - The following persons were appointed to serve on the State Board of Examiners for Coal Mine Officials until 1968: Robert A. Jackson, E.M., Secretary; Gerald R. Jones of Steamboat Springs; John Sebben of Trinidad; and Frank Bosco of Florence.

STRIP PIT DIRECTIVES - The directives for strip mines which have been under consideration and revision since 1963 were issued in mimeograph form on April 1, 1964, by Chief Inspector Donald Haske.

The committee for regulations consisting of E. E. Quenon of the Peabody Coal Company, Chairman; Lloyd J. Beer, Beer Coal and Construction Co., Fremont County; George Hays, P. & M. Coal Mining Co., Routt County; Joseph F. Lake, Jr., Seneca Coals, Ltd., of Routt County; Miller Spears, Energy Coal Company of Indianapolis, Indiana; and R. T. Eckles, Coordinator of the Division of Natural Resources, approved of this issue with the exception of Article 9, Section 1, relative to high walls and spoil banks - "In an attempt to

see that each operator would regrade in a manner approved by the State Coal Mine Inspection Department, the overburden and other strata removed from the coal, to minimize the hazards of flood, pollutions of streams and total accumulation of stagnant water and the loss of soil for agriculture and grazing purposes; and according to the State Departments of Agriculture, Reclamation and Soil Conservation." - which was amended - "Abandoned strip pits shall be left with the edges of their excavations sufficiently sloped to minimize the danger of persons and stock falling into such excavations." It was generally conceded that this must be left to the voluntary action of each operator, at this time; provided that no hazardous condition exists that endangers the lives of persons or animals. Any further regulations regarding rehabilitation will have to be made by the Federal or State Soil Conservation or Reclamation Departments, if legalized.

These directives have been prepared according to Colorado Revised Statutes by the Legislative Reference Department, for presentation to the State Legislature.

REVISION IN DEPARTMENT FORMS-REPORTS - For clarification and simplicity, all present report forms are being revised for more uniform and informative statistics.

This annual report presents some changes in the type of mining machinery being used at present, and coal mined accordingly.

The inspection report forms now used cover more detailed information as required in the State Coal Mining Laws, and will be retained as a permanent record of the conditions at each mine.

DIRECTIVES OF THE CHIEF INSPECTOR - 1. The use of rigid urethane foam for sealing permanent stoppings is to be confined to mines employing a trained and qualified operator of such equipment.

2. All mines employing three or less men underground, with only a Shot Firer in charge, a daily record of the conditions in the mine must be written in a book provided for that purpose, by the Shot Firer.

3. Strip operators are to report the total number of days of operation each month, including the days worked in removing overburden.

### HONOR ROLL FOR 1964 - 50,000 or more man-hours per injury. (From monthly reports to this office.)

				Non-	Man-hours
Mine	Company	County F	atal	Fatal	per injury
Dutch Creek	Mid-Continent C. & C.	Pitkin	1	1	139,808
Allen	C. F. & I. Corp.	Las A.	1	6	112,001
Somerset	U.S. Steel Corp.	Gunn.	0	2	100, 546
	Western District				
Thompson Crk.#	3 Thompson Crk. C. & C.	Pitkin	0	0	58,888
Sterling	McNeil Coal Corp.	Weld	0	1	51,040
	ENTION - 20,000 to 50,	000 man-	hours	s per	injury.
Underground Min	nes				
Thompson Crk.#	2Thompson Crk. C. & C.	Pitkin	0	0	40,536
Washington	Clayton Coal	Weld	0	2	40,235
Red Wing	Colowyo Coal	Moffat	0	0	38, 853
Eagle	Imperial Coal	Weld	0	3	35, 606
Boulder Valley	Boulder Valley Coal	Weld	0	2	34, 783
King	Juanita Coal & Coke	Delta	0	0	24, 314
Lincoln	Clayton Coal	Weld	0	2	23,809
Imperial	Imperial Coal	Weld	0	1	22,855
Strip Pits					
Edna Strip	P. & M. Coal Mining	Routt	0	2	47, 134
Nucla Strip	Peabody Coal	Montrose	e 0	0	25, 259

### SUMMARY OF FIELD WORK

Number of inspections	474
Number of check inspections	80
Examinations for Shot Firer	25
Serious accidents investigated	19
Complaints investigated	28
Mines closed for legal violations & non-	
compliance with recommendations made	10
Suspension of officials' certificates	4
Checks on mine fires - Reoccurrences	9

# GENERAL SUMMARY OF COLORADO COAL STATISTICS FOR 1964

10 101 4, 400, 702	3,417,960	982, 742	1, 474 169 17.7 33, 508	
Strip - 10 4, 88, 488 41, 066 31, 024	mines 973, 770 176, 827 921, 417 177, 626 51, 554	80, 732 1, 094, 308 36, 858		28 11 79 27
MINES REPORTING PRODUCTION         Mechanized - 75         Pick - 16           PRODUCTION IN SHORT TONS         Increase over 1963 - 693, 262           GRADES         SIZES           Bituminous         3, 535, 140           Mine run         1, 670, 141           Egg           Sub-bituminous         865, 562           Slack         1, 483, 866           Pea         943, 408           Miscellaneous	Underground nd labor	o to Public Service plant by conveyors ed out of state ile Seneca Strip	Average number) Underground - 1,056 Surface - 282 verage number per mine)Underground - 174  OF ALL MINES  ECHANICAL & ELECTRICAL EQUIPMENT - See pag  IERY - Electric cutting & shearing 18  Combined cutting & shearing 18  Drills: Electric 191 Compressed air rock of the state of	MECHANICAL CONVEYORS Shakers 74 Mamline - Belt Chain: Short face 6 Room length Mobile: Track 2 Shuttle cars Loading machines 127 Continuous miners

					Totals	389,812	1, 561, 617		09	84	81		Showers 312		ions 30	31		31	4		605 500	000, 999	2	7
Electric battery 40		H &	ာ က	22	Ammonium Nitrate		1,474,850 $1,474,850$		52			loaders 24	21	Rock dusting machines	Battery charging stations	ric)			Chemox	28	bes 40	sned coal	Wives	Minor children
		graders	S	Trucks to tipple	Others		$\frac{13,400}{13,400}$		Electric			Box car loaders	Bath houses	Rock dus	Battery	Underground sub-stations (electric)		aratus	20	Drifts	Coal slopes	1 Olis Ol Washed		Mi
Electric trolley 69 100	3, 107	Motor graders	Tractors	$\operatorname{Trucks}$	x Airdox	s 3 Mines			-	53	23	2	air 6	33	1	d sub-stati		Oxygen breathing apparatus		els 3	7		Dependents:	
	Electric cap	ω 4	12	$\infty$	ite Cardox	6 Mines	0 0		Steam	Mechanical	Force	Steam plants	Compressed	Surface	Aerial trams	nderground		kygen brea	Gas masks	Rock tunnels	-Joos	u 516, 334		
Locomotives: Electric hoists		Drag lines	1s	er shovels	le Dynamite		65,800		7 St		58 Fo	4 St	196 Cc	42 Su	158 Ac	2 Ui		Ô	Ğ	es 14	ads 18	ed of olle	ಣ	29
1	fety 404 EQUIPME	17 Dra		6 Power	Permissib	389,812	7, 567	ANEOUS	S	Gravity	Exhaust		Electric	derground				7	200	Rock slopes	On railro	micany tream Page 27	Fatalities	Non-fatals
EQUIPMENT	Flame safety IINERY & EQ		rs		(Pounds)	nd mines	ro.	MISCELL	Gas	Gr		an		essors: Un		nes	JIPMENT	ers 437	TEORMAT	s 5	Mines:	ar chemic - See Pas		$N_{\rm O}$
HAULAGE EQU	LAMPS: Flame safety 404 STRIP MACHINERY & EQUIPMENT	Bulldozers	Compressors	Loaders	EXPLOSIVES (Pounds) Permissible	Underground mines	Strip mines Totals	SURFACE & MISCELLANEOUS	Hoists:	Tipples:	Ventilation fans:	Coal washing pl	Pumps:	Air compressors: Underground	Telephones	Gravity planes	SAFETY EQI	Self-rescuers	Inhalators 5 GENERAL INFORMATION	Shaft mines	Number of Mines: On railroads	ACCIDENTS - See Page 27	Total number:	

### DIRECTORY

COMPANY	ADDRESS	MINE	ADDRESS	COUNTY
A.B.C. Coal Alvidrez & Sons Annex Coal Annex Coal Baldy Coal	Walsenburg Florence '' Trinidad	Bert's Black Knight #4 Annex #2 Annex #2 Strip Baldy #2	Same	Huerfano Fremont '' '' Las A.
Barstow, Aul& Peterson Bear Coal Beer Coal& Const., Inc. Beer Coal& Const., Inc. Bendetti, H.& L.	Palisade Somerset Florence " Glenwood Spgs.	Blue Flame Bear Beer Strip Beer Strip #2 New South Canon	Same	Mesa Gunnison Fremont '' Garfield
Berwind Coal Bisulco Partners Black Beauty Coal Boulder Valley Coal Bowman Coal	Trinidad Aguilar Walsenburg Denver (6) Trinidad	Berwind Canyon Bisulco Black Beauty Boulder Valley#3 Bowman's	Same " Dacono Same	Las A. "Huerfano Weld Las A.
Bradley Bros. Ent. Brodhead Coal C. F. & I. Corp. Can. Blk. Diam. Coal Canon Liberty Coal	Rifle Trinidad Denver (2) Florence Canon City	Harvey Gap #3 Brodhead #4-A Allen, E. &W. Port Can. Blk. Diam. Canon Liberty#3	Same Aguilar Weston Same	Garfield Las A. " Fremont
Canon Monarch Coal Canon National Coal Carestia, Ralph Cedar Canon Coal Champion Coal Mng.	Florence "" " Somerset	Canon Monarch#4 Canon National Carestia Strip Cedar Canon Hawk's Nest	Same	Fremont "" "" Gunnison
Clayton Coal Clayton Coal Coal Crk. Can. Mng. Colowyo Coal Corley Co., The	Denver (2) "Canon City Denver (2) Colorado Spgs.	Lincoln Washington Coal Creek Canon Red Wing Corley Strip	Erie '' Same Craig Florence	Weld " Fremont Moffat Fremont

### RAILROADS - OPENINGS - SEAMS

		OPEN			SEA	M	
C. Catandant D.D.	Doile	Shaft Rock	Rock	D:64	T74		
Superintendent RR	Cap.	Depth Slope Len	Tunnel gth	Driit	Ft.	In.	Pitch % -
Albert Amiday, Sr.	10	110			2	8	
Casimiro Alvidrez	18				8		$2^{\rm o}$
Nickie Rocchio, Sr.	50			Yes	5	6	
Nickie Rocchio, Sr.	50	STRIP			5	6	2%
John Hollingsworth	5			Yes	4	6	
Willis S. Barstow	20			Yes	8		3%
William A. Bear D&RG	675		300		8		
Lloyd J. Beer	100	STRIP			3		6%
Lloyd J. Beer	75	STRIP			3		6%
Henry Bendetti	20		30		5		57°
Fred Ortiz	9	200			4		
Sam Gonzales	6			Yes	4		
Mariano Pesina	20	1,000			4		
Thomas Harris U.P.	800	245			6	6	
John Bowman	4			Yes	2	10	
Robert Bradley	20			Yes	7		52 <sup>O</sup>
Sam Vasquez	15			165	3	10	3%
John Robertson, Jr. C&W	5,000	1, 578(E	77	Yes (W)		10	2-30%
Frank Yellico	100	1,010(1	<i>- y</i>	105(11)	6	7	6%
Frank Adamic	25			Yes	3	3	6%
Lloyd J. Beer	150			Yes	5	4	13 <sup>0</sup>
Raymond Jermance	50	1,400		165	5	7	10
Ralph Carestia	50	STRIP			4	4	5%
Alex Beltramo, Jr.	100	DIIII		Yes	6	2	2%
Ralph Audin	200	300		105	7	2	2 70
William Ferguson U.P.	1,700	1,800			8		
William Ferguson U.P.	1, 700	430			8		
John A. Javernick	40	100		Yes	4	6	6%
Jack V. White, Sr.	900	242		163	23	U	3-6%
Thomas E. Shelnutt	250	STRIP			3	7	8%
Library II. Discillate	200	OTILL			9		0 70

COMPANY	ADDRESS	MINE	ADDRESS	COUNT
Corley Co., The Corley Co., The Delcarbon Coal Double Dick Coal Dry Creek Coal	Colorado Spgs. "Walsenburg Florence Hayden	Pioneer Can.#1 Pioneer Can.#2 Calumet #2 Double Dick Cardinal	Florence "Same ""	Fremont Huerfanc Fremont Routt
Eagle Head Coal Ellis Coal Emmons Bros. Coal Energy Coal Fogg, Lyndon H.	Grand Jct. Somerset Paonia Indnplos., Ind. Cedaredge	McGinley Black Beauty Emmons Energy Strip Red Canon #1	Same '' '' Stmbt. Spg Same	Mesa Gunnisor Delta gs. Routt Delta
Fontanari, R. & A. Four Mile Coal, Inc. Franceville Coal Golden Quality Coal Green Valley Coal	Clifton Glenwood Spgs. Colorado Spgs. Canon City Cedaredge		Same	Mesa Garfield El Paso Fremont Delta
Grey Creek Coal Guadagnoli Bros. Hay Gulch Coal Hay Gulch Coal Hayden Coal	Trinidad "Hesperus "Hayden	Grey Creek #4 Engleville Hay Gulch #2 Hay Gulch #3 Babson	Same	Las A. '' La Plata '' Routt
Hesperus Coal Imperial Coal Imperial Coal Iuppa, Albert & Son Jenkins & Mathis	Hesperus Denver (2) '' Trinidad Meeker	Hesperus #4 Eagle Imperial Starkville #4 Rienau	Same Erie '' Same	La Plata Weld '' Las A. Rio Bl.
Juanita Coal & Coke Juanita Coal & Coke King Coal Last Chance Coal Lobato, Fidel	Bowie "Hesperus Canon City Durango	Cameo King King Last Chance Blue Flame	Cameo Same	Mesa Delta La Plata Fremont La Plata

			OPE		SEAM			
Superintendent	RR	Daily Cap.	Shaft Rock Depth Slope Let	Rock <u>Tunnel D</u> ngth	<u>Drift</u>	Ft.	<u>In.</u>	Pitch %-0
Thomas E. Shelnut	tt	600		300		5		8%
Thomas E. Shelnut		600		Y	<i>l</i> es	6		8%
George Sudar	D&RG	150	700			4	2	4%
Joe Rohar		100				6	6	
E. R. Todd		400		Y	<i>l</i> es	12		7%
Lawrence Downing	•	16		Y	<i>l</i> es	11		3%
Ellis Axelson		65		Z	<i>l</i> es	10	6	
John T. Emmons		30		Z.	<i>l</i> es	9		7%
Gerald R. Jones	D&RG	3,000	STRIP			8		10%
Lyndon H. Fogg		30	350			4	6	6%
R. Fontanari		20		Z	<i>l</i> es	6		3%
C. A. Betz		20	350			8		$42^{\circ}$
L. F. Gordley		25	STRIP			6	8	
Dominic Carestia		65				6	6	3%
D. Gail Brooks		50	250			6		$3^{\rm O}$
Lawrence Rivera		10		Y	<i>l</i> es	3	6	3%
Chas. Guadagnoli		10		Z	<i>l</i> es	9		
Wm. C. Hunt		7		Z	<i>l</i> es	6	6	$10^{\rm O}$
Wm. C. Hunt		5		Y	<i>l</i> es	6		
S. J. Prewitt		15		Z	<i>l</i> es	10	6	14%
Joe De Luzio		45		Y	<i>l</i> es	9	1	
Frank Kolar	U.P.	1,500	370			9		$1\frac{1}{2}\%$
Frank Kolar	U.P.	900	300			10	6	
Albert Iuppa, Jr.		20	300			5		
William Jenkins, J	r.	30		Y	<i>l</i> es	20		
Royd Jenkins	D&RG	400		Y	<i>l</i> es	6		3%
Robert F. Bowie	D&RG	300				16		7%
Irvin A. Smith		35		Z	<i>l</i> es	7		5%
Steve Kopic		40			<i>l</i> es	5	10	
Fidel Lobato		6		Z	<i>l</i> es	6	2	2%

COMPANY	ADDRESS	MINE	ADDRESS	COUNTY
Martinez, Albert Maschio Coal Mathews, John McNeil Coal Corp. Mid-Continent C. & C.	Cokedale Raton, N. Mex. Oak Creek Denver (2) Carbondale	Martinez Hastings #3 Johnnie's Sterling Dutch Creek	Same Trinidad Same Dacono Same	Las A. Routt Weld Pitkin
Montoya Coal Morning Glory Coal Moschetti, N. J. North Fork Coal Nu-Mine Coal	Trinidad Walsenburg Canon City Denver (2) Gunnison	Aguilar-Imperial Morning Glory Canon Zenith #2 Edwards Nu-Mine #2	Same " " Somerset Same	Las A. Huerfanc Fremont Gunnison
P & M Coal Mng. Pantazes, Pete Peabody Coal Peacock Coal Peacock Coal	Kansas City, Mo Aguilar St. Louis, Mo. Hesperus Trinidad	Edna Strip Prosperity #2 Nucla Strip Peacock Peacock	Oak Creek Same Nucla Same	Routt Las A. Montrose La Plata Las A.
Pete's Coal Phillips, H. B. Pilcher, Oren A. Pilcher, Oren A. Pilcher, Oren A.	Boncarbo Palisade Mancos	Pete's Gearhart Burnwell #1 Burnwell #2 Coal King #2	Same	Las A. : Mesa   La Plata
Red Ash Coal Reliable Coal & Mng. Rex Carbon Fuel Routt Mining Corp. Seneca Coals, Ltd.	Walsenburg Chicago, Ill. Florence Oak Creek Hayden	Maitland #2 Roadside Rex Carbon Keystone Seneca Strip	Grand Jct. Same	Huerfanci Mesa Fremont Routt
Silengo Coal Skinner Coal Smith, J. M. Sonchar Coal Staley-Gordon Coal, Inc.	Craig Walsenburg Gunnison Raton, N. Mex. Rangely	Wise Hill #3 Gordon Baldwin Delagua #4 White River	Same " " Delagua Same	Moffat Huerfand Gunnison Las A. Rio Bl.

				OPENINGS			S	EA	M
Superintendent	RR	Daily Cap.	Shaft Depth	Rock Slope Ler	Rock Tunnel ngth	Drift	<u>Ft</u> .	In.	Pitch %-0
Albert Martinez Adolph J. Maschio John Mathews A. W. Newcomb Ed Selan	U. P.	2 12 5 550 2,000	358			Yes Yes	3 7 4 7 6	4 3 4 11 8	6-8% 4 <sup>1</sup> / <sub>2</sub> 0
Milton Montoya Tony Just N. J. Moschetti Luther Baughman Joseph E. Partch, S		15 175 15 150 150				Yes Yes Yes	5 4 3 6 6	6 6 6	6% 3%
George A. Hays Pete Pantazes A. R. Ross David N. Adair Eugene Lopez	D&RG	3, 500 4 500 8 25		STRIP STRIP		Yes Yes Yes	6 2 5 5 6	6 6 10	10% 7° 5% 3°
Pete Garcia H. B. Phillips Oren A. Pilcher Oren A. Pilcher Oren A. Pilcher		2 30 35 15 10				Yes Yes Yes Yes	5 5 6 6	5 3 6 6 6	12%
Clarence Clair J. B. Richardson Frank Sacchetta Carl Steele Obie Dilldine	D&RG	100 50 80 50 3,000		300 STRIP		Yes Yes	3 6 3 5 8	6 6 10 10 6	5% 5% 12%
Charles L. Silengo Frank Zubal J. M. Smith Joe Sonchar, Jr. Conrad Staley	D&RG	300 50 10 50 30				Yes Yes Yes Yes	16 4 6 5 7	10	15% 1% 12%

COMPANY	ADDRESS	MINE	ADDRESS	COUNTY
Staples, S. L., Jr. States Coal Sullivan Coal Thompson Crk. C&C Corp Thompson Crk. C&C Corp	. ,	Ohio Creek #2 Top Apex #2 Thompson Crk.#1 Thompson Crk.#2	'' Carbondale	Gunnison Delta Routt Pitkin
Thompson Crk. C&C Corp Twin Pines Coal U.S. Steel Corp. Western DistCoal Vento Coal	Denver (3) Canon City Pittsburgh, Pa Florence	Thompson Crk.#3 Twin Pines Somerset Vento	Carbondale Same Somerset Same	Fremont
Victory Coal Zellitti, F.Jr., N. & C.	Hesperus Durango	Victory #3 Morning Star	Same	La Plata

				OPE	NINGS			SEA	A M
			Shaft	Rock	Rock			- 1	
Superintendent	RR	Daily	Depth	Slope	<u>Tunnel</u>	Drift	Ft.	In.	Pitch
		Cap.		Ler	ngth				%-
									~
S. L. Staples, Jr.		9				Yes	5		5%
Welland W. States		60				Yes	6		6%
B. E. Sullivan		4				Yes	5		5%
Andrew Allan		400				Yes	8		30°
Andrew Allan		150				Yes	7		300
Andrew Allan		250				Yes	9		30°
Budgie C. Fazzino		70				Yes	5	6	4%
A. M. Morrison	D&RG	1,494				(1	B-25		
						((	C- 7		4-7%
Tony Vento		150				Yes	5	8	7%
Joe DeLuzio		30				Yes	7		
Frank Zellitti, Jr.		12				Yes	5		10 <sup>0</sup>

## REPORT OF PRODUCTION

### BY MINE BY COUNTY ACCIDENTS DAYS, MEN,

COINTY		No. Men	Total		ACCIDENTS	100
MINE	COMPANY OR OPERATOR	Average	Days	Days TONNAGE	Fatal Non-Fat.	at.
DELTA						
Emmons	Emmons Brothers Coal	വ	142	4,581		
Green Valley #2	Green Valley Coal	ည	198	7,482	1	
King	Juanita Coal & Coke	18	1.63	43, 723		
Red Canon #1	Lyndon H. Fogg	က	221	5, 200		
Top	States Coal	3	135	1,590		
TOTALS (5)		34	859	62,576	- 1	
EL PASO	, c	(	l.	1		
Franceville Strip	Franceville Coal	77	75	1, 141		
TOTALS (1)		2	75	1, 141	1	
FREMONT						
Annex #2	Annex Coal	က	29	3, 158		
Annex #2 Strip	Annex Coal	က	164	11,024		
Beer Strip (Clsd.)	Beer Coal & Const., Inc.	က	116	6,862		
Beer Strip #2	Beer Coal & Const., Inc.	က	96	8, 183		
Black Knight #4	Alvidrez & Sons Coal	က	277	7,469		
Canon Black Diamond	Canon Black Diamond Coal	9	242	30, 982		
Canon Liberty #3	Canon Liberty Coal	4	276	6, 736		
Canon Monarch #4	Canon	9	219	18,343	2	
Canon National	Canon National Coal	7	170	6,804		
Canon Zenith #2	N. J. Moschetti	က	219	3,832		
Carestia Strip	Ralph Carestia	73	29	1,255		
Cedar Canon	Cedar Canon Coal	വ	244	12,026		
Coal Creek Canon	Coal Creek Canon Mining	4	209	6, 333		
Corley Strip	The Corley Company	2	28	7,686		
Double Dick	Double Dick Coal	4	202	9,002	-	

Golden Quality #4	Golden Quality Coal	ಣ	259	16, 930		
Last Chance	Chance	4	243	11, 358		
	Corley	18	41	10,408		2
Pioneer Canon#2(Clsd)	The Corley Company	17	147	63,949		23
Rex Carbon		9	211	13,665		1
Twin Pines	Twin Pines Coal	ಬ	249	17,268		
Vento	Vento Coal	7	238	19,460		2
TOTALS (22)		118	3,941	292, 736	1	13
GARFIELD			L			
rour Mile	rour wile Coal, inc.	.77	962	3, 061		
Harvey Gap #3	Bradley Bros. Enterprise	က	180	1,212		1
New South Canon	H. & L. Bendetti	4	270	3,961		
TOTALS (3)		6	206	8, 234	-	1
GUNNISON						
Baldwin	J. M. Smith	2	214	2, 103		
Bear	Bear Coal	26	163	87, 310		2
Black Beauty	Ellis Coal	9	220	13, 156		1
Edwards	North Fork Coal	10	51	7,027		2
Hawk's Nest	Champion Coal Mining	14	152	26,455		
Nu-Mine #2	Nu-Mine Coal	∞	218	15,415		2
Ohio Creek #2 (Clsd.)	S. L. Staples, Jr.	2	117	1,196		
Somerset	U.S. Steel Corp.,					
	Western District - Coal	118	215	310,745		2
TOTALS (8)		186	1,350	463, 407	1	6
HUERFANO						
Bert's	A. B. C. Coal	2	63	929		
Black Beauty (Clsd.)	Black Beauty Coal	23	25	200		
Calumet #2	Delcarbon Coal	17	207	19, 256		2
Gordon	Skinner Coal	9	205	5,946		П
Maitland #2	Red Ash Coal	12	220	17,245		1
Morning Glory	Morning Glory Coal	9	193	7, 528		1
TOTALS (6)		45	913	50, 751	1	5

ACCIDENTS Fatal Non-Fat										П		П	က			9					H										∞
ACC													1			Н															1
TONNAGE	T	987	6, 207	2,079	99	532	123	743	7,477	1,243	1,849	7,927	29, 223		1, 181	777, 496	30	2, 541	266	221	1,592	5,677	2, 225	1,200	3, 536	62	3, 611	229	857	3, 701	804, 425
Total Davs		141	220	145	4	133	64	48	213	185	207	259	1,619		91	234	വ	239	44	64	236	146	228	154	253	33	252	102	221	194	2,496
No. Men Average		2	4	က	2	1	П	က	2	27	П	ಬ	29		က	381	27	2	73	23	23	2	23	က	4	-	23	-	က	3	420
COMPANY OR OPERATOR		Fidel Lobato	Oren A. Pilcher		Oren A. Pilcher	Hay Gulch Coal	Hay Gulch Coal	Hesperus Coal	King Coal	F. Jr., N. & C. Zellitti	Peacock Coal	Victory Coal			Montoya Coal	C. F. & I. Corporation	Baldy Coal	Berwind Coal	Bisulco Mine Partners	Bowman Coal	Brodhead Coal	Sonchar Coal	Guadagnoli Brothers	Grey Creek Coal	Maschio Coal	Albert Martinez	Peacock Coal	Pete's Coal	Pete Pantazes	Albert Iuppa & Son Coal	
COUNTY	LA PLATA	Blue Flame	Burnwell #1	Burnwell #2	Coal King #2	Hay Gulch #2 (Clsd.)	Hay Gulch #3	Hesperus #4	King	Morning Star	Peacock	Victory #3	TOTALS (11)	LAS ANIMAS	Aguilar-Imperial	Allen	Baldy #2	Berwind Canyon	Bisulco	Bowman's	Broadhead #4-A	Delagua #4	Engleville	Grey Creek #4	Hastings #3	Martinez	Peacock	Pete's	Prosperity #2	Starkville #4	TOTALS (16)

MESA						
Blue Flame	Barstow, Aul & Peterson	က	238	2,934		
Cameo	Juanita Coal & Coke	27	239	80, 797	-	1
Gearhart	H. B. Phillips	2	100	2,960		
Go-Boy	Rudolph & Alta Fontanari	က	189	3, 727		
McGinley	Eagle Head Coal	က	153	2, 359		
Roadside (Supancic)	Reliable Coal & Mining	2	148	896		
TOTALS (6)		43	1,067	93, 673	1	2
MOFFAT						
Red Wing	Colowyo Coal	24	165	107,035		
Wise Hill #3	Silengo Coal	9	247	68, 437		
TOTALS (2)		30	412	175,472	1	
MONTROSE						
Nucla Strip	Peabody Coal	14	225	90,214		
TOTALS (1)		14	225	90, 214	-	1
PITKIN						
Dutch Creek	Mid-Continent Coal & Coke	92	256	508, 486	П	1
Thompson Creek #1	Thompson Creek C. & C. Corp.	42	248	992, 99		2
Thompson Creek #2	Thompson Creek C. & C. Corp.	21	247	25, 769		
Thompson Creek #3	Thomspon Creek C. & C. Corp.	30	248	56, 187		
TOTALS (4)		185	666	657,008	1	8
RIO BLANCO						
Rienau	Jenkins & Mathis Coal	2	228	4,065		
White River	Staley-Gordon Coal, Inc.	3	148	3,152		
TOTALS (2)		5	376	7, 217	1	_

COUNTY		No. Men	Total		ACCI	ACCIDENTS
MINE	COMPANY OR OPERATOR	Average	Days	TONNAGE	Fatal	Fatal Non-Fat.
ROUTT						
Apex #2	Sullivan Coal	-	23	45		
Babson (Clsd.)	Hayden Coal	က	47	556		
Cardinal	Dry Creek Coal	12	151	37, 584		က
Edna Strip	P. & M. Coal Mining	57	207	461, 304		2
Energy Strip	Energy Coal	28	257	358, 215		
Johnnie's	John Mathews	2	63	366		
Keystone	Routt Mining Corp.	ည	156	4,247		
Seneca Strip	Seneca Coals, Ltd.	17	20	36,858		
TOTALS (8)		125	954	899, 175	-	9
WELD						
Boulder Valley #3	Boulder Valley Coal	35	219	118,672		C <sup>4</sup>
Eagle	Imperial Coal	99	201	243,862		က
Imperial	Imperial Coal	19	111	46,437		1
Lincoln	Clayton Coal	37	149	121,960		2
Sterling	McNeil Coal Corp.	25	222	77,096		<del></del>
Washington	Clayton Coal	47	211	157, 423		2
TOTALS (6)		229	1, 113	765, 450	1	11
GRAND TOTALS -						
101 Mines		1,474	17, 105	1,474 17,105 4,400,702	က	29
		The second name of the second na			-	The second secon

### COAL PRODUCTION FROM 1864 THROUGH 1964

Year	Tonnage	Year	Tonnage	Year	Tonnage
1864	500	1898	4, 174, 037	1932	6, 616, 525
1865	1,200	1899	4,826,939	1933	5, 284, 872
1866	6,400	1900	5, 495, 734	1934	5, 251, 003
1867	17,000	1901	6,021,405	1935	5, 953, 601
1868	10,500	1902	7, 522, 923	1936	6,868,801
1869	8,000	1903	7, 775, 302	1937	7, 222, 092
1870	4,500	1904	6, 776, 551	1938	5, 730, 291
1871	15,600	1905	8, 989, 631	1939	6,002,125
1872	68, 540	1906	10, 308, 421	1940	6,673,359
1873	69,997	1907	10,965,640	1941	7,008,037
1874	77, 372	1908	9,773,007	1942	8, 131, 764
1875	95, 838	1909	10,722,490	1943	8, 372, 683
1876	117,666	1910	12, 104, 887	1944	8, 202, 401
1877	160,000	1911	10, 197, 595	1945	7,656,612
1878	200,630	1912	11,016,948	1946	5, 928, 823
1879	322, 732	1913	9, 268, 939	1947	6, 381, 016
1880	375,000	1914	8, 201, 423	1948	5, 682, 512
1881	706, 744	1915	8, 715, 397	1949	4,578,170
1882	1, 161, 479	1916	10, 522, 185	1950	4, 274, 887
1883	1, 220, 593	1917	12, 515, 305	1951	4, 111, 945
1884	1, 130, 024	1918	12,658,055	1952	3,643,523
1885	1, 398, 796	1919	10,406,543	1953	3, 598, 867
1886	1, 436, 211	1920	12, 514, 693	1954	2, 922, 365
1887	1, 791, 735	1921	9, 141, 947	1955	3, 366, 490
1888	2, 185, 477	1922	10,003,610	1956	3, 303, 661
1889	2,400,629	1923	10, 336, 735	1957	3, 324, 787
1890	3, 075, 781	1924	10,501,088	1958	2,972,191
1891	3, 512, 632	1925	10,440,387	1959	3, 293, 686
1892	3, 771, 234	1926	10,616,760	1960	3,624,572
1893	3, 947, 056	1927	9,781,580	1961	3,700,692
1894	3,021,028	1928	9,921,585	1962	3, 392, 570
1895	3, 339, 495	1929	9,934,064	1963	3,707,440
1896	3, 371, 633	1930	8, 238, 094	1964	4,400,702
1897	3, 565, 660	1931	6,604,063		

### COAL SHIPMENT AND DISPOSAL

				OUT OF	CHEM.
COUNTY	RAILROAD	TRUCK	AT MINE	STATE	TREATED
Delta	28, 864	33,064	648	11, 256	8,855
El Paso	-	1, 141	_	_	500
Fremont	6, 340	286, 376	20	3, 596	5, 692
Garfield	_	8, 234	_	-	5, 333
Gunnison	411, 416	51,884	107	343, 038	348,023
Huerfano	2, 318	48,433	_	15, 319	6, 753
La Plata	_	29,213	10	50	2,100
Las Animas	776, 280	26, 899	1, 246	3, 708	250
Mesa	-	12,893	*80, 732	-	_
Moffat	160, 295	15, 177	_	-	55, 540
Montrose	_	90,214	_	_	_
Pitkin	657, 008	_	_	657, 008	_
Rio Blanco	-	7,212	5	2, 500	5, 500
Routt	826, 039	36, 253	**36, 858	57, 833	64,443
Weld	517, 020	243, 921	4, 509	-	16,005
TOTALS	3, 385, 580	890, 914	124, 208	1,094,308	518,994

<sup>\*</sup>Public Service Power Plant from Cameo, by conveyor - 80,732

<sup>\*\*</sup>Stockpile - Seneca Strip - 36,858

### SIZES, GRADES, BY COUNTY

			OTHER			
MINE RUN	LUMP	EGG	GRADES	NUT	PEA	SLACK
11,745	7,407	24	1,073	1,830	3, 136	37, 361
1,141	-	_	_	_	-	_
95, 198	27, 443	1	5, 037	8, 300	9,294	147, 463
_	1, 257	-	330	138	579	5, 930
326, 479	18,079	_	_	3, 938	75, 468	39, 443
208	6, 862	8,102	_	2,066	9,009	24, 504
14,048	4,870	-	582	207	3, 761	5, 755
2,316	4,440	-	33	-	777, 493	20, 143
_	2,047	-	-	614	11	91, 001
68,437	8, 014	-	-	14,485	_	84, 536
90,214	-	-	-	_	-	-
657,008	_	-	_	_	-	_
_	659	-	_	414	-	6, 144
403, 347	16, 375	-	23, 969	8,423	54, 118	392, 943
	45, 256	80, 361	-	651	10, 539	628, 643
1, 670, 141	142,709	88,488	31,024	41,066	943, 408	1,483,866

### MECHANICAL LOADING

		MEC	CHAN	IICAL CO	ONVE	YORS			
		Cha	ain	Main- line	Mol	bile			TONS OF COAL
COUNTY	Shakers	Short Face	Room Length	Belt	Track	Shuttle Cars	Loading Machines	Continuous Miners	TOTALLY LOADED BY MECHANICAL DEVICES  (None or very little hand labor)
Delta	4	_	1	_	2	5	2	_	62,136
El Paso		_	-	_		-	-		_
Fremont	13	1	1		_	19	18	1	230, 228
Garfield		-	1	-		-	_		_
Gunnison	3	-	1	3	-	12	17	1	326, 177
Huerfano	14	1	3	-	_	-		_	44,029
La Plata	3	_	_	-	_	3	2	_	15,404
Las Animas	1	_	_	12	_	10	34	7	_
Mesa	8			-		4	5		83, 437
Moffat		_		2		4	6	1	107, 035
Montrose	_	_		_					_
Pitkin	22	4	4	7		4	8	4	_
Rio Blanco	2	_			-	3	4		7,217
Routt	1			2		4,	4		42, 387
Weld	3	-		2		11	27	13	3, 367
TOTALS	74	6	11	28	2	79	127	27	921, 417

Tonnage mined and loaded by continuous miners - 2,267,363

### COLORADO - 1964

	M	INING MA	ACHINER	Y	
TONS OF COAL HAND-LOADED ONTO MECHANICAL DEVICES	Cutting	Combination Cutting and Electric Shearing	Electric Drills	Compressed Air Rock Drills & Stopers	TOTAL TONNAGE
_	7	2	11	_	62, 576
_	-	-	-	-	1,141
10, 568	31	3	30	-	292, 736
1,212	-	-	5	-	8, 234
_	22	1	22	2	463, 407
6, 522	25	_	15	-	50, 751
_	15	_	12	-	29, 223
1, 181	4	5	15	8	804, 425
9, 621	21	3	17	-	93, 673
_	_	1	1	_	175,472
_	-	_	_	_	90, 214
148, 522	_	_	30	_	657, 008
_	5	1	6	_	7, 217
	10	1	15	_	899, 175
-	5	1	12	_	765, 450
177, 626	146	18	191	10	4, 400, 702

### Successful Candidates in Examination for Coal Mine Officials

### December 5, 1964

### Mine Foreman Johnson, Lawrence A.

Fire Boss Anderson, Boyd J. Anderson, Glen J. Brady, Grant Reese Cobb, Carlin G. Davis, Leonard A. Diamanti, Jim G. Gettler, Henry M. Godeski, John Halsey, Onnie Lee Hyatt, Garth D. Jensen, Val Malensek, Rudolph L. Mine Foreman Plum, Robert L. Richardson, Chas. H. Savoni, Julio St. Clair, Paul G. Mine Foreman

### Additional rating after Fire Boss Experience Mine Foreman

Mine Foreman Assistant Mine Foreman Assistant Mine Foreman Mine Foreman

Mine Foreman Mine Foreman Mine Foreman Mine Foreman Assistant Mine Foreman Mine Foreman Mine Foreman St. Louis, Eurin G. Assistant Mine Foreman

Strip Pit Mine Foreman Dilldine, Obie E. Parker, Jimmy W.

### BOARD OF EXAMINERS

Donald Haske, Chief Inspector Robert A. Jackson, E.M., Secretary Frank Bosco Gerald R. Jones John Sebben

### FATAL ACCIDENTS

Date	Name	e		Mine	9	County	Cause	Occu	pation	Age	Exp.
3-2	Orie	C. rtgra	WOS	Came	eo	Mesa	Roof Fall		le car erator		23
3-18	Richa			Dutch	Creek	Pitkin	Roof Fall		er-Co		$3\frac{1}{2}$ Mo.
6-3	Antho			Allen			Machinery	Shutt	le car erator		19 1/4
							THE INDUST				
10-29	Shirl	Pre	witt	Babs	on	Routt	Heart	Oper	ator	66	48
				FOU	R YEA	R COM	IPARISON				
	ON-FA				~	0.7			FAT.		1001
			1964		Causes		ury	1961		1963	
11	18	16	18		alls of		.,	1	2		2
7	2	2	8		all of f		rıb				
13	2	3	2		alling						
7	4	6	1		alls of	*					
17	11	12	7		andling		rials				
1	3	3	5		and too						
1		2			triking	vs. ob	jects				
2	15	13	12		aulage			2	1	1	
1		4			xplosio		as				
1					xplosiv						
2	1	_			lectrici			_			_
6	13	8	8		lachine			2			1
7	2	1	3		ack pip						
			1		R cars						
	3		2	. 0	thers	1					
76	74	70	67			Cotals		5	3	1	3
			<u> </u>	A C C I	DENT		ATISTIC	$\underline{\mathbf{S}}$	).T	77 - 4 - 1	
						<u>'atalitie</u>		1.0		Fatal	
Data1:	4				1963			_19	63	19	64
Fatali		/0		a l- 1 -		1	3		7.0		CT
Non-F					0 /	710	0.04	<b>5</b> 0	70	4.5	67
	1,00					718	2.04		. 25	43	5.45 $22$
Men e						393	491		.90	C.F.	
	ge pe				3, 707,		366, 901		963		682
	nillion				• 4	269	. 682	1	. 88		1.52
Depen	uents:		idow		in and)	1 5	$\frac{2}{7}$				
		C	iniul	. en( w)	inors)	5	(				

### FINANCIAL STATEMENT FOR CALENDAR YEAR

### 1964

### RECEIPTS

Coal Tax	\$29, 126.88
License Fees	3,970.00
Law Books Sold	29.50
Misc Including sale of old	
Equipment	348.92
General Fund Appropriation	40,415.05

Total \$73, 890.35

### **EXPENDITURES**

Salaries - Field & Office	\$55,748.42
Travel - Hotels, Meals, Gasoline, etc	5,106.46
Equipment - Field & Office	2,176.10
Workmen's Compensation	1,852.00
Telephone & Telegraph	489.84
Supplies - Field & Office	463.38
Postage	417.91
Printing	283.00
Garage Rent - Field & Office	221.10
Insurance - Cars & Equipment	150.27
Surety Bonds	127.50
Maintenance & Repair of Equipment	91.21
Misc Blue Prints & Subscription	13.16
Map Project	6,750.00

Total \$73, 890.35

### COAL PRODUCTION AND VALUES BY COUNTY FOR 1964 COKING, BITUMINOUS & SUB-BITUMINOUS COALS

COUNTY	TONNAGE	VALUATION
Delta	62, 576	\$ 317,886
El Paso	1,141	5, 796
Fremont	292,736	1, 487, 099
Garfield	8, 234	41,829
Gunnison	463,407	2, 354, 108
Huerfano	50,751	257, 815
La Plata	29, 223	148, 453
Las Animas	804, 425	4,086,479
Mesa	93, 673	475, 859
Moffat	175, 472	891, 398
Montrose	90, 214	458, 287
Pitkin	657,008	3, 337, 600
Rio Blanco	7,217	36, 662
Routt	899, 175	4, 567, 809
Weld	765, 450	3, 888, 486
	GRAND TOTAL OF STA	ATE \$22, 355, 566

Valuation figures from the Department of Natural Resources of the United States Bureau of Mines, were based on the average value per ton of all coal mined.





